U.S. Pat. App. Ser. No. 10/080,647 Attorney Docket No. 10746/31 Reply to Office Action of 10/18/05

## **Amendments to the Specification:**

Please amend without prejudice the Specification as follows:

Please amend the paragraph beginning at line 34 of page 16 as follows:

--As shown in the figure, the distributed digital signature generation apparatus [[1]] 2 includes a certain number of partial digital signature generation parts 13 and an integrated digital signature generation part 14.--.

Please insert the following paragraph beginning at line 23 of page 17 as follows:

--The "Pair Of Digital Document and Partial Digital Signature" 17 is shown in Figure 3.--.

Please insert the following paragraph beginning at line 16 of page 18 as follows:

--The "Digital Document With Additional Information" 18 and the "Pair Of Digital Document With Additional Information And Partial Digital Signature" 19 are shown in Figure 4.--.

Please amend the paragraph beginning at line 8 of page 21 as follows:

--In the configuration shown in Figs. 2 and 3, each partial digital signature part 13i calculates  $S_i(M) = H(M)^{D(i)} \mod N$  ( $1 \le I \le r$ ) for the input digital document M by using a proper hash function (for example, SHA-1 and MD5) whose range is included in  $\{0, 1, \ldots, N-1\}$ .  $S_i(M)$  is defined as a partial digital signature 16 for M.--.

Please amend the paragraph beginning at line 8 of page 27 as follows:

--As shown in Fig. 6, m subsets I (0), ..., I (m-1) of  $\{r(1), ..., r(m)\}$  are selected such that each I (i) consisting of k elements and I (i) =  $(r((j+i+1) \mod m) + 1) \mid 0 \le j \le k m-1)$  (I = 0, ..., m-1} in step 61.--.

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Please amend the paragraph beginning at line 12 of page 27 as follows:

--The integrated digital signature S (M', I(i) is generated from  $\{S_{r(j)}(M') \mid r(j) \in I(i)\}$  for each I (i) (i = 0, . . ., m-1) in step 62.--.

Please insert the following paragraph beginning at line 19 of page 27 as follows:

-- The next step 64 of Figure 7 is performed as follows:--.